

DESCRIPTIONS OF NEW SPECIES OF LIZARDS AND OF A TREE-FROG FROM NORTH-EASTERN QUEENSLAND.

By DR. A. GUNTHER, F.R.S.

(Plates XI., XII.)

MR. W. S. DAY, who has collected in Australia and New Guinea for the Tring Museum for some years past, has sent to me a few reptiles which he obtained in the Bartle Frere Mountains. Although specimens from the same district seem to have previously reached the Sydney and Brisbane Museums, and have been ably described in Australian Journals, I found in the consignment sent by Mr. Day some interesting forms which I am unable to identify from the descriptions published.

Carphodactylus gen. nov. Geckon.

Digits rather slender, without any dilated portion, not fringed, with a row of transverse lamellae below. Claws projecting, rooted between five small scutes, a pair on each side, and a median unpaired one above. The two or three distal joints are angularly bent. Body covered with flat, very minute granules : larger tubercles along the median line of the back, forming a sort of crest. Tail compressed, tapering.

1. *Carphodactylus laevis* sp. nov.

(Plate XI.)

Habit slender. Head broad, very distinct from neck, depressed, concave between the eyes and in the loreal region. Crown of the head bony and finely rugose, without tubercles. Eyes large, directed obliquely forwards, about midway between ear-opening and nostril : upper eye-lid thin, with sharp projecting margin. Nostril small, in the hinder edge of a rather large nasal : nasals separated by a patch of small flat scutes. Ear-opening vertical, oval, about one-fourth the size of the eye. Rostral large, undivided : upper labials seventeen, lower fourteen : median lower labial large, pentagonal, without post-mentals. Body nearly smooth, the granulations being very minute and flat. Neck with larger tubercles, forming a triangular patch, the apex of which passes into a median dorsal stripe of tubercles, which simulates a crest, and does not extend on the tail. A patch of small scutes in the pubic region. No preanal pores. Legs slender, granular, with minute tubercles.

Tail not quite as long as the body, strongly muscular and compressed in its proximal portion, the distal being very thin and tapering : there is no distinct boundary between the two portions. The whole tail is uniformly covered with small flat granulations.

Light chestnut-brown, with scattered black spots, about the size of the ear-opening, on the back and sides. Lower parts whitish, with small indistinct

round white spots on the lower part of the sides. Tail nearly black, with five broad whitish rings. Toes irregularly annulated with whitish.

Total length	200 millimetres.
Distance of vent from snout	103 „
Length of tail	96 „
Distance of tympanum from snout	25 „
Diameter of the eye	7 „
Length of fore-limb	51 „
„ third finger	8 „
„ hind-limb	60 „
„ third toe	11 „

2. *Phyllurus lichenosus* sp. nov.

(Plate XII.)

Closely allied to *Phyllurus platurus*, with which it agrees in the general form of the head and body. The diameter of the eye is considerably less than its distance from the ear, and scarcely one-half of its distance from the end of the snout. Ear-opening a narrow vertical slit. Nostril behind the rostral and supranasal, and above the first labial. Rostral divided in the middle, very broad; median lower labial large, without post-mentals. Thirteen upper and ten lower labials, without counting some granules round the corner of the mouth. Upper parts covered with minute granules, with larger conical tubercles which form about ten longitudinal series; the series on the border between the side and abdomen contains the most slender and longest tubercles, all being soft and flexible. Lower parts with minute flat granules, those in the pubic and ante-pubic regions being enlarged. No spine above the eye.

Tail as long as the trunk, greatly depressed, leaf-like, ending in an abruptly attenuated and tapering portion; its margins are deeply scalloped. As to the upperside, the middle muscular part is finely granular, and the lateral membranaceous part provided with two series of strong conical tubercles; the edges of the lobes are beset with thin spines. The attenuated part of the tail is armed with four series of strong conical tubercles. Lower parts of the tail uniformly granular, like the abdomen.

Greyish, with symmetrical brown markings, confluent across the back, where they form four broad cross-bands, the first occupying the neck.

Total length	130 millimetres.
Distance of snout from vent	80 „
Diameter of eye	6 „
Length of tail	50 „
„ attenuated portion of tail	19 „

The integuments of the tail of this species are still more highly specialised for protective purposes than in *Phyllurus platurus*, of which I have seen specimens with intact tail, apparently not reproduced. In fact the likeness to its surroundings of this gecko, when lying flat against a lichen-grown bark of a tree or a rock, must be perfect. In the collection of the Natural History Museum are three specimens from the *Challenger* collection obtained in Queensland, one adult and two young,

another specimen from Port Curtis, collected by Dr. Coppinger during the voyage of the *Alert*, and a fifth without locality recorded, which belong to the same species.

The question whether this species is identical with *Gymnodactylus cornutus* of Ogilby (*Records Austral. Mus.* II. p. 8) must be negatived at present, although this species is reported from the same district, the Bellenden-Ker. In the full description which Mr. Ogilby gives of it, the author mentions a strong spinate knob surmounted by a conical tubercle behind the eye: this is absent in our species. Beside other differential characters, I may refer to the form of the interorbital region of *G. cornutus*, which is described as a deep narrow fossa, owing to the much enlarged and elevated supraciliary region. Its tail is described as covered above by minute granular scales, intermixed, except on a *vertebral patch* of the leaf-like expansion, with *soft triangular* appendages. In our species the granulated part, which is devoid of tubercles, extends as a *broad band* along the whole length of the muscular portion of the expanded tail.

There remains the question whether the specimens referred to our species represent, after all, only a certain condition of growth of the tail of *Phyllurus platurus*. This species was originally described from New South Wales specimens, and may be readily distinguished by the absence of the series of slender tubercles which flanks the abdomen of *Ph. lichenosus*. In the majority of the southern specimens which I have seen, the tail is reproduced and of that appearance which has led to the description of the nominal form, *P. incermis*. However, in a few specimens the tail is apparently intact, showing quite a different arrangement of the tubercles, as shown in fig. A of Plate XII. The tubercles are scattered all over the surface, except in a *narrow* median line, and the margin of the leaf-like expansion is not lobulate. I have never seen a specimen of *P. platurus* like the one mentioned by Mr. Ogilby (*l.c.* p. 10), which had a non-tubercular vertebral *patch*. Also, the margin of the tail of *Ph. platurus* is remarkably thick and swollen.

One of the specimens in the Natural History Museum (the one without locality, as mentioned above, and registered 58.4.16.4) is especially interesting, as it has the tail reproduced. I have figured its tail on Plate XII. fig. B. It is quite different from a reproduced tail of *Ph. platurus*: it is elongate leaf-shaped, not terminating in a long cylindrical portion. Its margin is broad, very thin, and not scalloped; in this specimen no tubercles or spines whatever are developed.

3. *Egernia frerei* sp. nov.

No curved groove behind the nostril. Nasals slightly separated from each other; posterior frontals forming a suture together; vertical contracted in the middle, twice as long as broad, longer and rather larger than the median occipital; five supraoculars, of which the second is the largest; seven supraciliaries: a complete ring of infraoculars, shutting the labials out of the orbit. Three pairs of nuchals, of which the two posterior are very narrow. Ear-opening as large as the eye, with three lobules in front, of which the upper is the largest and obtusely rounded; the two others small.

Thirty-four longitudinal rows of scales round the body: the dorsal are the largest, obtusely bicarinate; the lateral are the same size as the ventral. As to the scales on the side of the neck, those behind the ear and in front of the shoulder are very small, and the intermediate visibly smaller than those on the side of the trunk. Six praeanales.

Tail depressed near its root, compressed farther behind. The compressed

portion is clothed above with a double series of larger scales, and below with a single median series.

The adpressed limbs overlap.

Brown, with faint blackish longitudinal bands along the dorsal series of scales ; sides blackish, with scattered bluish white spots, each confined to a single scale. Lower parts whitish, with undulated blackish transverse lines across the throat and chest.

Total length	233 millimetres.
Distance between snout and tympanum	19 "
" " " vent	93 "
Length of tail	140 "
" fore-limb	26 "
" hind-limb	35 "
" first hind-toe	7 "
" second hind-toe (from base of first)	13 "

This species is certainly distinct from all which I know by autopsy, and cannot be referred to any of the other described species, differing by the number or structure of the scales, scutellation of the head, etc.

4. *Hyla dayi* sp. nov.

Tongue subovate, slightly nicked behind. Vomerine teeth in two transverse series, behind the level of the choanae. Head much depressed ; snout rather longer than the diameter of the orbit ; canthus rostralis distinct, loreal region sloping outwards ; interorbital space broader than the upper eye-lid ; tympanum distinct, one-fourth the area of the eye. Fingers strongly webbed, the web extending to the penultimate phalanx of the third finger ; toes fully webbed. Discs of the fingers not quite as large as the tympanum ; a fold along the inner edge of the tarsus. The distance between vent and snout equals that between vent and heel. Skin smooth above, granular below ; a fold above the tympanum, none across the chest. Uniform brownish above (in spirit), whitish below.

Distance of snout from vent	52 millimetres.
Length of hind-limb	92 "

EXPLANATION OF THE PLATES.

Plate XI. Upper and side views of *Carphodactylus laevis*. Side and lower views of third toe (enlarged).

Plate XII. *Phyllurus lichenosus*. Fig. A. Upper view of tail of *Ph. platurus*. Fig. B. Upper view of tail of *Ph. lichenosus* (reproduced).